

CLAIMS

1/ A method of making a tank out of blown, thermoformed, or rotomolded thermoplastic material, the method comprising the following steps:

· making a portion in relief on the inside of the tank, said portion in relief enabling an attachment to be mounted inside the tank and defining a permanent housing for receiving at least a portion of said attachment, the portion in relief for being made:

either by implementing the following steps:

a) placing at least one insert inside an enclosure;
 b) inserting the material that is to form the wall of the tank inside the enclosure; and
 c) forming the wall of the tank by blowing, thermoforming, or rotomolding, the insert being positioned inside the enclosure in such a manner that while the wall is being formed, it covers the insert at least in part, the insert also being of a shape that is selected in such a manner that said wall, by taking on at least part of the shape of the insert, constitutes said portion in relief;

or else by mounting a mounting member on the wall of the tank.

2/ A method according to claim 1, in which the attachment is constituted by a pipe, a filter, a pump, a fuel gauge, or a support member.

3/ A method according to claim 1, in which said attachment is a valve.

4/ A method according to claim 1, in which said portion in relief is made on the top wall of the tank.

5/ A method according to claim 1, in which said housing has an end wall, and the attachment comes into contact with said end wall once it has been mounted.

6/ A method according to claim 1, in which said housing is defined inside an annular wall.

7/ A method according to claim 6, in which said wall is interrupted.

8/ A method according to claim 6, in which said wall is continuous.

9/ A method according to claim 1, in which said portion in relief is in the form of two tabs, said housing being defined between the tabs.

10/ A method according to claim 1, in which the attachment is put into place in the housing along the axial direction thereof.

11/ A method according to claim 1, in which said portion in relief presents a shape selected to enable the attachment to be mounted by snap-fastening.

12/ A method according to claim 1, in which said portion in relief presents a shape selected to enable the attachment to be held by friction to the wall of the tank.

13/ A method according to claim 1, in which said portion in relief is made by implementing steps *a)* to *c)*.

14/ A method according to claim 13, in which a wall of the tank is made by blowing a parison placed inside the enclosure.

15/ A method according to claim 13, in which step *b)* precedes step *a)*.

16/ A method according to claim 13, in which the shape of the insert is selected in such a manner as to constitute reinforcement within the wall of the tank, limiting variations in the dimensions thereof.

17/ A method according to claim 13, in which the overmolded portion of the insert is of a shape selected in such a manner as to guarantee effective retention in the wall of the tank.

18/ A method according to claim 17, in which the portion in relief is annular in shape having a radially inner surface that diverges towards the outside of the tank.

19/ A method according to claim 13, in which the insert it is maintained in the enclosure while the wall is being formed so that the outside surface of the tank has a setback in register with the insert.

5 20/ A method according to claim 13, in which the insert is made of a material having a melting temperature that is higher than that of the material(s) constituting the parison.

10 21/ A method according to claim 13, in which the insert is made of polyolefin, in particular of high-density polyethylene.

22/ A method according to claim 13, in which the insert is made of metal.

15 23/ A method according to claim 13, in which insert is held captive in the wall of the tank, after it has been overmolded.

24/ A method according to claim 1, in which said mounting member is mounted on a wall of the tank by heat-sealing.

20 25/ A method according to claim 24, in which the attachment has elastically deformable tabs suitable for deforming elastically to go past an annular bead on the mounting member.

25 26/ A method according to claim 1, in which the wall of the tank includes at least one layer of thermoplastic material and a layer that forms a barrier against hydrocarbons.

30 27/ A method according to claim 26, in which the wall has two layers of thermoplastic material and, sandwiched between them, a layer forming a barrier against hydrocarbons.

28/ A method according to claim 1, in which wall of the tank is subjected to treatment for forming a barrier against hydrocarbons, in particular to treatment by fluorination.

35 29/ A fuel tank including a wall of blown thermoplastic material overmolded on at least one insert, the wall covering the insert defining a

portion in relief enabling an attachment to be mounted to the body of the tank, said portion in relief including a housing suitable for receiving at least a portion of the attachment.

5 30/ A fuel tank including a wall of rotomolded thermoplastic material overmolded on at least one insert, the wall covering the insert defining a portion in relief enabling an attachment to be mounted to the body of the tank, said portion in relief including a housing suitable for receiving at least a portion of the attachment.

10 31/ A fuel tank including a wall of thermoformed thermoplastic material overmolded on at least one insert, the wall covering the insert defining a portion in relief enabling an attachment to be mounted to the body of the tank, said portion in relief including a housing suitable for receiving at least a portion of the attachment.

15 32/ A method of making a tank of blown, thermoformed, or rotomolded thermoplastic material, the method comprising the following steps:

20 · making a portion in relief on the inside of the tank, said portion in relief enabling an attachment to be mounted inside that tank, the portion in relief being made:

either by implementing the following steps:

a) placing at least one insert inside an enclosure;

25 b) inserting the material that is to form the wall of the tank inside the enclosure; and

30 c) forming the wall of the tank by blowing, thermoforming, or rotomolding, the insert being positioned inside the enclosure in such a manner that while the wall is being formed, it covers the insert at least in part, the insert also being of a shape that is selected in such a manner that said wall, by taking on at least part of the shape of the insert, constitutes said portion in relief;

or else by mounting a mounting member on the wall of the tank,

the wall of the tank comprising at least a layer of thermoplastic material and a layer that forms a barrier against hydrocarbons.